

EXHIBIT 28

'97-09-18 00:34 A.P.

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ALFRED P. WEHNER, D.M.D., Sc.D., CAND. MED.
 DIPLOMATE, ACADEMY OF TOXICOLOGICAL SCIENCES
 312 SAINT STREET
 RICHLAND, WASHINGTON 99352

9/17/97

Mr. Michael R. Chudkowski
 Manager, Preclinical Toxicology
 J&J Consumer Products, Inc.
 Skillman, NJ 08558-9418

Dear Mike:

There is a German saying which translates as follows:

"A true friend is not he who beguiles you with flattery
 but he who discloses to you your mistakes
 before your enemies discover them."

In this spirit I would like to volunteer a critique of the three CTFA response statements which you faxed me on September 11. Some of the wording leaves CTFA wide open to counter-attack. The most harmless response statement of the three is the one dated July 1, 1992. It does not give the names of the authors and the title of the paper to which the response is being made. More important, I believe that different and/or additional more powerful statements along the lines of my critique faxed to Jerry McEwen, as far as applicable to the situation in 1992, would have put CTFA in a more advantageous tactical position. Several investigators have independently reported talc particles in ovarian tissue. Simply citing the Battelle study and stating that it "demonstrated that talc does not trans-late (sic!) through the cervix to the uterine cavity and beyond" does not address the problem, does not refute these findings, and therefore does not serve CTFA's best interest. All in all, in my opinion an inept response.

The problem with the response statement dated July 8, 1992, is more serious. The last sentence in the second paragraph states: "Finally, human studies on talc and cancer in industrial settings have shown that industrial exposure to talc, both by skin contact and inhalation, even at levels thousands of times higher than lifetime consumer exposure, presents no significant risk." This statement is outright false. All an Epstein, a Kennedy, or one of their aides knowledgeable in matters talc, would have to do at a hearing (or any occasion, at that) to demolish the credibility of the talc industry is to refer to the studies by Kleinfeld et al, Thomas, and Thomas and Stewart!

Referring in a 1992 statement to a 1977 editorial in defense of one's position is not a very persuasive argument. Much can happen in 15 years.

509/375-0873 Fax 509/375-5693

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Here, too, I believe that more powerful and better defensible arguments could and should have been made on behalf of the industry.

The response statement dated November 17, 1994, is just as bad. The second sentence in the third paragraph reads: "The workshop concluded that, although some of these studies suggested a weak association might exist, when taken together the results of the studies are insufficient to demonstrate any real association." This statement is also inaccurate, to phrase it euphemistically. At that time there had been about 9 studies (more by now) published in the open literature that did show a statistically significant association between hygienic talc use and ovarian cancer. Anybody who denies this risks that the talc industry will be perceived by the public like it perceives the cigarette industry: denying the obvious in the face of all evidence to the contrary. This would be a particularly tragic misperception in view of the fact that the industry does have powerful, valid arguments to support its position.

The workshop did not conclude that "the results of the studies are insufficient to demonstrate any real association." As pointed out above, a "real" statistically significant association has been undeniably established independently by several investigators, which without doubt will be readily attested to by a number of reputable scientists/clinicians, including Bernard Harlow, Debra Novotny, Candace Sue Kasper, Debra Heller, and others. What the workshop panel did conclude was that (1) the results of the studies were ambiguous, inconsistent, contradictory and therefore inconclusive, (2) therefore hygienic use of cosmetic talc does not present a risk to the consumer. So why not use these powerful and irrefutable arguments (plus some of those along the lines of my fax to Rich) instead of questionable mush that leaves one vulnerable to counterattack? The following sentence states: "In addition there is no basis to conclude that talc is capable of migrating to the ovaries...". I submit that several reports, independently describing talc particles in/on ovarian tissue, along with other suggestive evidence (questionable as some of it might be) does provide a basis for just such a conclusion. My point is that such a complex and vexing issue cannot be credibly dismissed with one sweeping statement without any documenting references.

Mike, I realize that CTFA is not J&J. However, I believe that a defeat or embarrassment of CTFA also negatively affects J&J to some extent. As a consultant on a retainer I feel obligated to proactively act in the best interest of my client at all times, not only when I am approached with a specific assignment. This consideration alone motivated me to spend the time to bring my thoughts on this matter to your attention. I trust that in the process I did not step on anybody's toes.

Best regards

AL

EXHIBIT 29

6. Evaluation and Rationale

6.1 Cancer in humans

There is *inadequate evidence* in humans for the carcinogenicity of inhaled talc not containing asbestos or asbestiform fibres.

There is *limited evidence* in humans for the carcinogenicity of perineal use of talc-based body powder.

6.2 Cancer in experimental animals

There is *limited evidence* in experimental animals for the carcinogenicity of talc not containing asbestos or asbestiform fibres.

6.3 Overall evaluation

Perineal use of talc-based body powder is *possibly carcinogenic to humans* (Group 2B).

Inhaled talc not containing asbestos or asbestiform fibres is *not classifiable as to its carcinogenicity* (Group 3).

6.4 Rationale

In making this evaluation the Working Group considered the human and animal evidence as well as evidence regarding the potential mechanisms through which talc might cause cancer in humans.

The Working Group found little or inconsistent evidence of an increased risk for cancer in the studies of workers occupationally exposed to talc. The studies of talc miners and millers were considered to provide the best source of evidence, but no consistent pattern was seen. One study observed an excess risk for lung cancer among miners, but confounding from exposure to other carcinogens made it difficult to attribute this to talc and no excess risk was seen in millers. Other studies also found no increased cancer risk or no higher risk with increasing cumulative exposure. Overall, these results led the Working Group to conclude that there was *inadequate evidence* from epidemiological studies to assess whether inhaled talc not containing asbestos or asbestiform fibres causes cancer in humans.

For perineal use of talc-based body powder, many case-control studies of ovarian cancer found a modest, but unusually consistent, excess in risk, although the impact of bias and potential confounding could not be ruled out. In addition, the evidence regarding exposure-response was inconsistent and the one cohort study did not provide support for an association between talc use and ovarian cancer. Concern was also expressed that



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exposure was defined in a variety of ways and that some substances called talc may have contained quartz and other potentially carcinogenic materials. A small number of Working Group members considered the evidence to be inadequate. Despite these reservations, the Working Group concluded that the epidemiological studies taken together provide *limited evidence* of an association between perinatal use of talc-based body powder and an increased risk for ovarian cancer.

In one study of rats that inhaled talc, an excess incidence of malignant lung tumours was seen in females. The same study observed an excess incidence of pheochromocytomas in the adrenal medulla in both sexes, but the Working Group was divided as to whether these rare tumours could be attributed to exposure to talc. Other studies in rats and mice using different routes of administration did not find an excess of cancer, and two studies in rats were considered to be inadequate for evaluation. Based on the one positive study, the Working Group found that there was *limited evidence* of carcinogenicity of inhaled talc in experimental animals. There was no agreement within the Working Group as to whether the evidence on pheochromocytomas should be taken into account in the evaluation of animal data.

JNJ 000381976

EXHIBIT 30

From: Hubbard, Sue (RTM)
Sent: Friday, July 7, 2006 07:40:33 AM
To: Glenn, Robert[RGlenn@crowell.com]
CC: Harrass, Michael (RTM)
Subject: ACGIH

Bob,

On ACGIH, Mike Harrass is leading the team on ACGIH and can bring you up to date

Sue

*Dr Sue Hubbard
Chief Toxicologist
Rio Tinto Minerals
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*Effective 1st February 2006, Borax is combining its management with two sister companies, namely Luzenac, the world leader in talc and Dampier Salt, the premier exporter of solar salt, to form a new organisation called **Rio Tinto Minerals**. The transition will take place progressively throughout 2006 for full implementation on 1st January 2007.*

Registered Office : Borax Europe Limited 1A Guildford Business Park, Guildford, GU2 8XG. Registered In England No 36374

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-----Original Message-----

From: Glenn, Robert [mailto:RGlenn@crowell.com]
Sent: 30 June 2006 14:02
To: Hubbard, Sue (RTM)
Subject: RE: Publication Update

What is your reaction to ACGIH moving forward with development of a documentation for talc? How are you coming with progress on your notes re our June 13 Meeting? Have Great 4th of July! Sorry, you chaps don't celebrate that one - do you?

Kind regards,

Bob

From: Hubbard, Sue (RTM) [mailto:Sue.Hubbard@borax.com]
Sent: Wednesday, June 28, 2006 5:38 AM
To: Glenn, Robert; Argust, Peter (RTM); TURNER, Eric (LG CIT); Godell, Ralph (LNA); Bernard, Craig (USBORAX); Cutler, Kent (LNA); Keener, Mike (LNA); Yordan, Jorge (LNA); Brown, Judy P. (USBORAX); REFREGIER, Michele (LEU); Harrass, Michael (USBORAX); William G. Kelly, Jr.; Zazenski, Rich (LNA); Hall, Ridgway; Hall, Ridgway
Cc: Metaresearch@hotmail.com; JMuscato@PSU.edu; Hall, Ridgway
Subject: RE: Publication Update

Well done - look forward to getting reprints

Sue

*Dr Sue Hubbard
Chief Toxicologist
Rio Tinto Minerals
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Fax: +44 1483 242155 or 01244 303225*

Plaintiff's Exhibit
No.

P-78

Mob: +44 7802813302

Email: sue.hubbard@borax.com

Website: www.borax.com

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-----Original Message-----

From: Glenn, Robert [mailto:RGlenn@crowell.com]

Sent: 27 June 2006 17:46

To: Argust, Peter (RTM); TURNER, Eric (RTM); Hubbard, Sue (RTM); Godell, Ralph (RTM); Bernard, Craig (RTM); Cutler, Kent (RTM); Keener, Mike (RTM); Yordan, Jorge (RTM); Brown, Judy P. (RTM); REFREGIER, Michele (LEU); Harrass, Michael (RTM); William G. Kelly, Jr.; Glenn, Robert; Zazenski, Rich (RTM); Hall, Ridgway; Hall, Ridgway

Cc: Metaresearch@hotmail.com; JMuscato@PSU.edu; Hall, Ridgway

Subject: Publication Update

Ladies and Gentlemen,

I received some fantastic news from Drs. Huncharek and Muscat regarding the manuscripts regarding talc and ovarian cancer which they submitted to the medical literature. First, the manuscript on the meta-analytic study of diaphragm storage in talc and a possible relationship with ovarian cancer has been accepted and will be published in the European Journal of Cancer Prevention. The editor, Carlo LaVecchia, advised Michael by e-mail. Dr. LaVecchia is a prominent figure in cancer prevention and this is an ideal journal in which to have this study appear. Secondly, the review manuscript on the relationship between perineal talc dusting and ovarian cancer has been provisionally accepted and will be published in the Journal of Clinical Epidemiology after minor formatting revisions are made. Another well-respected scientific journal for publication of their manuscript. I know you all join me in commending Michael and Josh for their first-rate study on the talc-diaphragm meta-analysis and their splendid review article on the literature regarding talc and ovarian cancer. We will apprise you as we learn of publication dates for these articles.

Again, thanks Mike and Josh and congratulations!

Kind regards to all,

EXHIBIT 31

From: Hubbard, Sue (RTM)
Sent: Friday, March 31, 2006 02:07:50 AM
To: Harrass, Michael (USBORAX); Bernard, Craig (USBORAX); Branch, Tracy (USBORAX); Shettle, Keith (RTM); Hoadley, Lara (RTM); Rickards, Helen (RTM)
Subject: FW: Lancet publication of IARC Summaries - Out this morning
Attachments: Lancet Oncology.doc

[More on talc](#)

Sue

Dr Sue Hubbard
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-----Original Message-----

From: Zazenski, Rich (LNA)
Sent: 28 March 2006 20:09
To: Goldberg, Gary (RTM); Parr, Adam (RTM); Keefe, Susan (RTM); Argust, Peter (RTM); JONES, Laura (LEU); Stockman, Mike (USBORAX); Robison, Chris (RTM); Goldsworthy, Denise (DSL); Brown, Judy P. (USBORAX); Sperring, Keith (RTM); TURNER, Eric (RTM); Argust, Peter (RTM); Saperstein, Steve (RTM); Olsen, Jeff (RTM); Hubbard, Sue (RTM)

Subject: Lancet publication of IARC Summaries - Out this morning
Importance: High

To all - Peter asked that I summarize for you the latest developments on the IARC review of talc. This morning, the journal *Lancet Oncology* published a summary of the IARC classifications of Talc, TiO₂, and Carbon Black for IARC Monograph 93. The summary is surprising brief and low key. While it is too early to tell if the release of the summary will garner widespread press coverage, we are cautiously optimistic right now that the release may fly under the radar screen of major news organizations. When you read the summary of the talc/ovarian cancer issue, you'll see that there remains many unaddressed questions.

I've spoken with J&J's Steve Mann and he is also somewhat optimistic - as is their lead attorney John O'Shaughnessy. We'll just have to wait and see what develops in the next few days (Suzi - I forwarded a copy of the Lancet piece to Iris Grossman at J&J - although I haven't heard anything back from her. You might want to give her a call).

Depending on what happens in the coming days and weeks, we'll need to maintain flexibility in our strategy in dealing with the aftermath. For instance, we (J&J with assistance from Luzenac) had plans for Dr. Michael Hunkarek to write a letter to the editor of Lancet taking issue with how the IARC Working Group dealt with the epidemiology studies on talc. As of right now, it looks like we are going to hold off on this due to the many ambiguities in the summary.

We will keep you apprised of any late breaking developments - but so far, so good.

Rich

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No.

P-92

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EXHIBIT 32

June 30, 2005

William G. Kelly

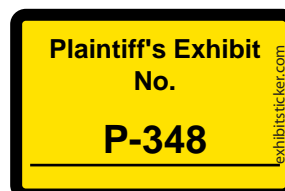
Re: Talc and Ovarian Carcinogenesis

Dear Bill:

Per your request, I have undertaken and completed a systematic discovery of medical scientific experts on the epithelial ovarian carcinogenesis. The objectives of this task were a) to identify such individuals from several disciplines who could be responsible for reviewing the body of scientific literature on talc and ovarian carcinogenesis in order to arrive at an independent and objective conclusion as to whether talc is a likely or definite ovarian carcinogen and b) to form a "priority list" within each discipline based on level of expertise and reputation, research interest and likelihood of objectivity.

Experts were sought in the disciplines of Epidemiology (preferably with background in Biostatistics), Molecular & Cell Biology of Carcinogenesis (emphasizing in vivo models), Pathology, Gynecologic Oncology and General Gynecology. Since all gynecologic oncologists are also board certified in general gynecology and consolidation of manpower is an important consideration, general gynecologists without expertise in gynecologic oncology or the other relevant fields, were not sought.

In addition to personal knowledge of such experts, The National Center for Biotechnology Information (<http://www.ncbi.nlm.nih.gov/>) was used to perform a comprehensive search. Complete and selected bibliographies were then reviewed to identify individuals with appropriate expertise. Some individuals were also identified from the Committee on Cancer Prevention and Control of the Gynecologic Oncology Group (<http://www.gog.org/>) as this important national cooperative group committee has had particular interest in mechanisms of ovarian carcinogenesis and primary prevention. Of the more than two hundred individuals initially identified and screened, a final list of 21 was generated. Some of these thought investigators/thought leaders have expertise in more than one discipline. I have provided tables for each discipline with a rank order and rationale for the rank order below.



Epidemiology

Rank	Last	First	Degree	Title	Institution	URL
1	Brinton	Louise	PhD	Senior Investigator, Chief - Hormonal and Reproductive Epidemiology Branch Unit Chief, Department of Obstetrics, Gynecology & Reproductive Biology	NCI	http://dceg.cancer.gov/people/BrintonLouise.htm
2	Cramer	Daniel	MD MD,	Professor, Epidemiology	Brigham & Women's Hospital	http://www.brighamandwomens.org/WRHRprog
3	Risch	Harvey	PhD	Professor, Epidemiology	Yale University	..\..\PDF\Personal\Risch H Biblio.pdf
4	Harlow	Bernard	PhD MD,	Professor, Epidemiology Professor of Medicine,	Harvard School of Public Health	Bernard Harlow, Associate Professor in the Depa
5	Colditz	Graham	PhD	Epidemiologist Associate Professor of	Harvard Medical School	Channing Laboratory - Graham A. Colditz, MD,
6	Hankinson	Susan	ScD	Medicine, Epidemiologist	Harvard Medical School	Channing Laboratory - Susan E. Hankinson, ScD
7	Rodriguez	Carmen	MD,	Senior Epidemiologist	American Cancer Society	
8	Daly	Mary	PhD	Senior Member, Population Science Division	Fox Chase Cancer Center	Fox Chase Cancer Center: Mary B. Daly, M.D., I

Rationale for Rank Order (first three candidates):

Louise Brinton is a highly regarded epidemiologist with an important administrative position within NCI, who is highly prolific in epidemiology in general and in the epidemiology of ovarian cancer in particular. She has not participated in any studies related to talc exposure that I can tell, so would likely remain unbiased in this regard. She is also a member of the GOG CPC.

Daniel Cramer is an epidemiologist who I believe received his medical subspecialty training in Obstetrics & Gynecology. He is a highly regarded ovarian cancer epidemiologist with a strong publication list in this area. He was a key investigator in the prospective cohort study of talc exposure and ovarian cancer development. This is the most scientifically reputable epidemiologic study in this area. A key factor in the selection of Dr. Cramer to the short list is his combined experience in gynecology and ovarian cancer epidemiology.

Harvey Risch is an MD, PhD, Professor of Epidemiology at Yale and a world renowned ovarian cancer epidemiologist. Based on his selected publication list, he is also likely to remain unbiased. I have had personal contact with Dr. Risch.

Molecular & Cell Biology of Carcinogenesis

Rank	Last	First	Degree	Title	Institution	City	State	URL
1	Auersperg	Nelly	MD, PhD	Professor of Obstetrics & Gynecology	University of British Columbia	Vancouver		Interdisciplinary \
2	Godwin	Andrew	PhD	Member, Medical Science Division	Fox Chase Cancer Center	Philadelphia	PA	Fox Chase Canc
3	Hamilton	Thomas	PhD	Senior Member, Medical Division	Fox Chase Cancer Center	Philadelphia	PA	Fox Chase Canc
4	Bell	Debra	MD	Associate Professor of Pathology	Harvard Medical School M.D. Anderson Cancer Center	Boston	MA	Pathology Servic
5	Bast	Robert	MD	Professor Senior Member, Population Science	M.D. Anderson Cancer Center	Houston	TX	Robert C. Bast, J
6	Testa	Joseph	PhD	Division Chairman, Department of Molecular	Fox Chase Cancer Center M.D. Anderson Cancer Center	Philadelphia	PA	Fox Chase Canc
7	Mills	Gordon	MD, PhD	Therapeutics		Houston	TX	M. D. Anderson C

Rationale for Rank Order (first three candidates):

Nelly Auersperg is one of the most accomplished and well renowned reproductive scientists in the area of ovarian carcinogenesis and the biology of the surface ovarian epithelium. She is number one, hands down. She is also trained in Obstetrics & Gynecology so functionally covers two categories..

Andrew Godwin is the most accomplished current basic scientist in the area of ovarian carcinogenesis. He is a close colleague and disciple of Thomas Hamilton. His work is truly cutting edge.

Thomas Hamilton is a pioneer in the biology of ovarian carcinogenesis and has experience in several in vivo model systems (similar to Dr. Godwin). He is also one of the only scientist to publish on the basic scientific relationship between talc and ovarian cancer.

Pathology

Rank	Last	First	Degree	Title	Institution	City	State	URL
1	Kurman	Robert	MD	Professor of Pathology & Obstetrics/Gynecology	Johns Hopkins	Baltimore	MD	Gynecologic Pathology
2	Bell	Debra	MD	Associate Professor of Pathology Professor of Pathology & Internal Medicine	Harvard Medical School	Boston	MA	Pathology Service at MGH
3	Cho	Kathleen	MD	Assistant Professor, Molecular Pathology	University of Michigan Massachusetts General Hospital	Ann Arbor Boston	MI MA	University of Michigan - Dr Pathology Service at MGH
4	Orsulic	Sandra	PhD					

Rationale for Rank Order:

Robert Kurman is a double boarded pathologists and obstetrician-gynecologist who is an icon of ovarian cancer pathology. His CV speaks for itself.

Debra Bell is a molecular pathologist with expertise on carcinogenesis of epithelial ovarian tumors. She is Associate Professor in the Department of Pathology at Harvard Medical School and trained under Dr. Scully, the father of ovarian pathology.

Dr. Cho is a Professor of both Pathology and Internal Medicine with a large body of experience in ovarian cancer pathology. She has several basic scientific interests including the molecular classification of ovarian carcinomas. I know Dr. Cho personally and she is not only well respected, but well spoken.

Dr. Orsulic is also a molecular pathologist from a good institution, with a more limited C.V. than Dr. Bell, but with important expertise in mouse models of ovarian carcinogenesis.

Gynecologic Oncology

Rank	Last	First	Degree	Title	Institution	City	State	URL
1	Berchuck	Andrew	MD	Professor of Obstetrics & Gynecology Associate Professor,	Duke University	Durham	NC	Duke University IGSP Site -- Ar
2	Brewer	Molly	MD, DVM, MS	Obstetrics & Gynecology, Gynecologic Oncology Associate Professor,	University of Arizona	Tuscon	AZ	University of Arizona, Departme
3	Burger	Robert	MD	Obstetrics & Gynecology, Gynecologic Oncology	University of California, Irvine	Orange	CA	ROBERT ALLEN BURGER, M

Any of these would be excellent, though I am obviously biased in including myself in this list.

Andrew Berchuck is probably the most highly regarded combination of gynecologic oncologist and basic ovarian cancer researcher. Although most of his work has dealt with ovarian carcinogenesis as it relates to molecular genetics, he is a key thought leader in the general subject of epithelial ovarian cancer pathogenesis. He is also president-elect for the Society of Gynecologic Oncologists and a personal colleague. He is not only brilliant and analytical, but extremely classy and well spoken individual.

Molly Brewer is a gynecologic oncologist at U of A with a focused research interest in precursors of ovarian carcinoma development. She is highly involved in primary prevention studies.

Robert Burger is a gynecologic oncologist with a research program dedicated to ovarian cancer pathogenesis and therapeutics. He is a member of several important committees in the Gynecologic Oncology Group, including the Ovarian Cancer Committee, the Committee on Experimental Medicine, and the Developmental Therapeutics Committee. He has an academic interest in ovarian carcinogenesis and prevention, including multiple invited lectures on this subject and organizing and directing a symposium on this subject at his local NCI comprehensive cancer center.

EXHIBIT 33

To: IMA-NA Talc Section

From: Mark Ellis, President

Re: Marshalling Talc Industry Resources for IARC Monograph 93

Date: August 15, 2005

Background

During its teleconference on August 11, 2005, the Industrial Minerals Association – North America (IMA-NA) Talc Section, in collaboration with the Industrial Minerals Association – Europe (IMA-EU) and the Cosmetic, Toiletry, and Fragrance Association (CTFA), discussed how the talc industry should mobilize its resources to inform the International Agency for Research on Cancer (IARC) Working Group deliberating the carcinogenicity of non-asbestiform talc. The Talc Section requested IMA-NA staff to summarize the subject of their discussions in a short paper, outlining the pros and cons of each activity, and offering an estimate of prospective costs associated with each activity. IMA-NA Talc Section members, and IMA-EU and CTFA staff, agreed to forward the options paper to their principals to determine which activities were of most interest and highest priority, which activities should be funded, and how to the cost of those activities should be allocated. The IMA-NA Talc Section, and collaborating organizations, will discuss their priorities and the commitment of resources during a teleconference scheduled for Thursday, August 18, at 9:30 a.m. (EDST). The consensus of the group was that time was of the essence in resolving a course of action so that necessary steps could proceed apace.

Activities

The discussion revolved around four identified activities: 1) formation of a talc industry task force to assemble documentation and arguments to support talc during the deliberations of the IARC Working Group; 2) collaboration with the International Carbon Black Producers Association (ICBPA) and the American Chemistry Council's Titanium Dioxide Panel (ACC TiO₂ Panel), whose primary products also are the subject of Monograph 93; 3) retention of one or more industry observers to represent the talc industry at the February 2006 meeting of the Working Group in Lyon, France; and 4) initiation of scientific research studies that reasonably could be completed and published, or accepted for publication, in peer-reviewed journals before the February 2006 meeting of the Working Group. Each of these activities is summarized below.

Formation of a Talc Industry Task Force

During its teleconference meeting on July 15, 2005, the IMA-NA Talc Section, and collaborating organizations, agreed to form a talc industry task force to assemble documentation and arguments to support talc during the deliberations of the IARC Working Group. The following individuals were identified as task force participants: Eric Turner (Luzenac); Rich Zazenski (Luzenac); Mike Larson (Minerals Technologies) Ed de Beus (Mondo Minerals); Linda Loretz (CTFA); Michelle Wyart-Remy (IMA-EU) and Mark Ellis (IMA-NA). The first activity of the



task force is to assemble the pertinent scientific literature expected to be considered by the Working Group. The task force is composed of member volunteers and association staff, affording a pool of talc industry expertise utilizing sweat-equity contributions. Staff time and travel are the likely costs associated with this activity.

Talc Industry Collaboration with the ICBPA and ACC TiO2 Panel

For the past several months, IMA-NA staff and company representatives have been holding regular teleconferences with representatives of the ICBPA and ACC TiO2 Panel. Each of the interest groups has provided updates on scientists they were encouraging to self-nominate as potential Working Group members or, alternatively, as Invited Specialists. The collaborators also have discussed whom they might nominate as industry observers and how the organizations representing the three substances under review in Monograph 93 might best coordinate their activities with common purpose. The collaborators have agreed to hold a meeting in Arlington, VA, on September 13, 2005, to brief each other on the issues underlying their primary products and to determine areas of commonality and divergence relative to the Working Group. Staff time and travel costs are expected to be minimal. However, Luzenac has underwritten the participation of Bob Glenn in teleconferences to date, and the cost of his past and continued participation in this activity cannot be viewed as minimal. The collaboration has the potential for future cost savings by pooling activities of the organizations that would otherwise be required independently, such as maintaining a “war room” in Lyon, France, during the meeting of the Working Group.

Industry Observers to Represent the Talc Industry

Under IARC procedures industries with substances under review by IARC are invited to nominate individuals for credentialing as Industry Observers at the Working Group meeting. Unlike Working Group members, Industry Observers have a limited role and no vote in the deliberations of the Working Group. IARC has defined the scope of activities for Industry Observers (see attached *IARC Observer Guidelines*), but they typically have played a significant role in their interactions and contributions to the deliberations of the Working Group. Their acceptance often is a factor of the expertise, utility and congeniality they bring to the Working Group’s deliberations. Unlike Working Group members, or Invited Specialists, IARC provides no financial support for industry observers. Nominees are expected to be self-sustaining (financially supported by outside sources). During last week’s teleconference Talc Section members determined that it was premature to identify specific individuals to nominate to serve as Industry Observers. It was agreed that the talc industry should examine the make-up of the Working Group, as determined by IARC, and evaluate whether any of the scientists the talc industry was encouraging to self-nominate as potential Working Group members or, alternatively, as Invited Specialists were not selected and might make suitable Industry Representatives. Two types of professional expertise were discussed: 1) expertise in evaluating lung overload as a potential mechanism of action in lung cancer, and 2) expertise in evaluating associations between talc exposure and ovarian cancer. Costs associated with retaining an Industry Observer typically would include the cost of their professional consultation (prior to, during, and following the Working Group meeting) and associated travel expenses. It is estimated that the cost of retaining and underwriting an Industry Observer would be \$50,000.

Two Industry Observers would cost on the order of \$100,000. Retention of an Industry Observer(s) to represent the talc industry at the Working Group meeting is regarded as essential to having the ability to monitor, and potentially influence, the outcome of the meeting.

Initiation of Scientific Research Studies

During last week's teleconference Talc Section members considered two proposals for scientific research studies that reasonably could be completed and published, or accepted for publication, in peer-reviewed journals before the February 2006 meeting of the Working Group. Studies completed for consideration by the Working Group also would have utility before the U.S. National Toxicology Program (NTP) should it decide to pursue listing talc in the 12th *Report on Carcinogens*.

RTI Health Solutions (RTI-HS) proposes to update a report entitled *Assessing the Epidemiologic Literature on the Carcinogenicity of Talc*. This report, written in 2000 by Rothman, Pastides, Muscat and Samet, included a meta-analysis (quantitative literature review) of about 20 epidemiologic studies, as well as a meta-regression that examined dose-response trends based on duration and intensity. The original report is viewed as having been instrumental in the decision by the U.S. National Toxicology Program to defer listing talc in the 10th *Report on Carcinogens*. The RTI-HS proposes to bring the literature review up to date and repeat the meta-analysis and meta-regression analyses to evaluate the extent to which recently published studies may have affected the weight of evidence. The study offers the prospect of bringing the most up-to-date information on the critical topic of human epidemiology before the Working Group. The research team is authoritative and highly regarded. However, the consensus of Talc Section members is that the study is overpriced at \$100,000. An effort to reduce the projected cost of the study would be undertaken should the Talc Section be interested in underwriting this research study. The original report by Rothman, *et al.*, and the proposal from RTI-HS are attached (see attached *Rothman – 10th ROC Comments* and *C0205.185 7-5-05*).

Dr. Brooke Mossman, affiliated with the University of Vermont College of Medicine, proposes to compare gene profiling by non-asbestiform talc to that of crocidolite asbestos in human mesothelial and ovarian epithelial cells. Little is known about the cellular and molecular effects of talc on cells. Gene profiling studies have been done on chrysotile asbestos. In contrast to titanium dioxide (a non-pathogenic, control dust), chrysotile induces a number of genes linked to inflammation, fibrogenesis and loss of cell control. Gene profiling increasingly is being used in evaluating the carcinogenic potential of substances. While human epidemiology is likely to be determinative in the Working Group evaluation of talc, studies that demonstrate the absence of a plausible mechanism of action will cast doubt on causal associations between exposure to talc and cancer. Dr. Mossman is a recognized expert in cellular pathology. The projected cost of the study is \$75,000. The proposal from Dr. Mossman is attached (see attached *Talc vs Asbestos 6-30-05*).

Cost Allocation Options

IMA-NA has no institutional formula for allocating the cost of activities pursued by its member sections. Activities pursued by a section, beyond sweat equity and reasonable staff time, are

expected to be self-funded. Thus, it is imperative for Talc Section member companies to determine which activities are of most interest and highest priority, which activities should be funded, and how the cost of those activities should be allocated. Discussion in last week's teleconference suggested that market share might serve as a reasonable basis for allocating the cost of any activities pursued, but antitrust considerations precluded any attempt to discern such a formula under the auspices of IMA-NA. However, IMA-NA staff offered to consult the U.S. Geological Survey (USGS) commodity report for talc to determine if some external source had attempted to make such a determination. However, upon investigation, we learned that USGS has not formally published the market shares of domestic talc producers.

IMA-EU and CTFA, and/or their members, also may be willing to underwrite the cost of any activities determined worthy of pursuit. IMA-EU and CTFA staff have agreed to pursue interest in this regard within their organizations.

Closing Observations

Funding a talc industry initiative to evaluate the carcinogenicity of talc may be a case of: "You can pay me now, or you can pay me later." IARC is viewed around the globe as an authoritative body when it comes to determining the carcinogenicity of chemical substances. An affirmative finding assuredly will follow the product in the future and likely will result in producers of that product being subject to product liability and occupational tort liability actions. The cost of defending these lawsuits, even meritless ones, can be expected to be substantial. An investment at this time to ensure that the existing scientific literature on talc is evaluated appropriately by the Working Group, perhaps resulting in a determination of no, or limited, carcinogenic association could be viewed as a prudent business decision in the long run.

Should you have any questions regarding the contents of this memorandum, please do not hesitate to contact me.

Mark G. Ellis
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EXHIBIT 34



MATERIAL DATA SAFETY SHEET TALC

Plaintiff's Exhibit
No.

P-215

exhibitsticker.com

Section 1. Product and Company Identification

Product Names

Grade 25 USP
Imperial 250 USP
1885L USP/BC
1892L USP/BP/EP/BC
Suprafino HP USP
Imperial 180 USP

Imperial 200 USP
Imperial 400 USP
Imperial 1889L USP/BP/EP/BC
Olympic H USP
Supra H USP

Imperial 400Y USP
Imperial 500 USP Imperial
Imperial 1890 USP/BCImperial
Olympic HY USP
Supreme H USP

Synonyms Talcum powder, Soapstone, Steatite

Chemical Name Talc ; Hydrous magnesium silicate CAS# 14807-96-6 Chemical Family Phyllosilicates

Manufacturer Luzenac America, Inc. Emergency Health
8051 E. Maplewood Avenue, Bldg 4 Information (24 hrs)
Greenwood Village, CO 80111 303-623-5716
Toll-free +1-800-325-0299 (General Information)

Section 2. Composition/Information on Ingredients

Substance	CAS#	% by Weight	TLV - TWA
Talc	14807-96-6	98-100	2 mg/m ³ respirable fraction (ACGIH)
Dolomite	16389-88-1	0-2	Use Talc TLV for total exposure measurements

Section 3. Health Hazards Identification and Emergency Overview

Emergency Overview Under normal conditions of use, this product is not expected to create any unusual emergency hazards. This product is **NOT** flammable, **NOT** reactive, **NOT** explosive, has **NO** flash point, and poses **NO** special hazards in the presence of fire.

Potential Health Effects from Acute and Chronic Occupational Exposures to Talc

TARGET ORGANS



LUNGS, RESPIRATORY SYSTEM

Inhalation ACUTE: Exposure to a large concentration of air-borne dust of this material may cause mechanical irritation of the mucous membranes and respiratory tract.
CHRONIC: Repeated or prolonged inhalation of air-borne dust of this material may cause scarring of the lungs (pulmonary fibrosis), with shortness of breath, chronic cough, and respiratory assisted heart failure. Prolonged exposure to talc can produce symptomatic talc pneumoconiosis (talcosis).

Skin Contact ACUTE: Direct contact may cause dryness, or may cause mild irritation if an allergic predisposition exists.
CHRONIC: Prolonged contact may cause dryness of the skin, or may cause mild irritation if an allergic pre-disposition exists

Eye Contact ACUTE: Direct contact with dust may cause mechanical irritation of the eyes.
CHRONIC: Repeated exposure may cause conjunctivae inflammation.

Ingestion ACUTE: This material is considered to be harmless and inert when ingested.
CHRONIC: Repeated ingestion of large doses of talc for 13 and 10 successive days by rabbits and mice revealed negative teratogenic and carcinogenic results.



MATERIAL DATA SAFETY SHEET

TALC

Section 4. First Aid Measures

Inhalation	Remove from exposure area to fresh air. If breathing has stopped, perform artificial respiration and get medical attention immediately. Keep person warm and at rest. Treat symptomatically and supportively.
Skin Contact	Apply common skin moisturizers to relieve dryness. Irritations are uncommon; however, if irritation or redness develops, seek medical attention. Broken skin can be cleansed with mild soap and water.
Eye Contact	Wash eyes with large amounts of water or normal saline solution. If irritation or redness develops, seek medical attention.

Section 5. Fire Fighting Measures

Flammability	This product is NOT flammable, NOT reactive, NOT explosive, has NO flash point, and poses NO special hazards in the presence of fire. Firefighters require NO special protective equipment or precautions.
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Section 6. Accidental Release Measures

Small Spill	Use vacuum to clean up spillage. Place in sealed container.
Large Spill	For large spills, shovel or sweep up (while keeping dispersion of dust in air to a minimum) and place into suitable sealed containers for reclamation or later disposal. Residue should be cleaned up using a high-efficiency particulate filter vacuum. The use of water wash-down is not recommended. Wet material can cause a surface used for walking to become extremely slippery. Talc is not considered a hazardous waste by RCRA criteria (40 CFR 261).

Section 7. Handling and Storage

Handling & Storage	Handle in ways to minimize the creation of dust. Preserve product in sealed containers.
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Section 8. Exposure Controls & Personal Protection

Personal Protection	Use NIOSH approved dust respirator. Use safety glasses or dust tight goggles. No special skin protection is usually required, but gloves should be worn by workers susceptible to skin irritation.
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Controls	Provide local exhaust or process enclosure ventilation to meet published exposure limits (TLV).
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Section 9. Physical & Chemical Properties

Appearance	White to grayish-white powder
Odor	Slight earthy odor.
Flammability	This product is NOT flammable, NOT reactive, NOT explosive, has NO flash point.
Specific Gravity	2.8 (water = 1.0)
Melting Point	None



MATERIAL DATA SAFETY SHEET

TALC

pH	Slightly basic (10% slurry in water)		
Solubility	Water: <1 mg/mL @ 21 C	Acetone : <1 mg/mL @ 21 C	Alkalies: Insoluble
	Ethanol: <1 mg/mL @ 21 C	Cold acids: Insoluble	

Section 10. Stability & Reactivity Data

Stability This product is stable, non-reactive, and non-corrosive.

Incompatibility with various substances Non reactive/none known.

Section 11. Toxicological Information

Toxicology NIOSH Registry Number: WW2710000
SAX Toxicity Evaluation: THR: Not available
Carcinogenic Status:
IARC: (2006 in preparation) Has concluded that perineal use of talc-based body powder is possibly carcinogenic to humans (Group 2B). This is not a route of exposure relevant for workers and applies to one specific use of talc only.
IARC: (2006 in preparation) Inhaled talc not containing asbestos or asbestiform fibres not classifiable as a human carcinogen (Group 3)
OSHA: Not listed.
ACGIH: A4 – Not Classifiable as a Human Carcinogen
NTP: Not listed. A 2-year inhalation study demonstrated clear evidence of carcinogenic activity in female rats at exposure levels of 18 mg/m³. Some evidence of carcinogenic activity was observed in male rats at the same level. No evidence of carcinogenic activity was found in mice (NTP TR-421).
Tumorigenic Data:
TCLo: ihl-rat 11 mg/m³/1Y-I
TDLo: imp-rat 200 mg/kg
Other Toxicity Data:
Skin and Eye Irritation Data: skn-hmn 300 ug/3D-I MLD
Teratogenicity (Reproductive Effects Data): Not available.
Mutation Data: Not available.

Section 12. Ecological Information

Ecological Data

Species	Alga ((<i>Selenastrum capricornutum</i>))	<i>Daphnia Magna</i>	<i>Daphnia Magna</i>
Test	Growth inhibition	Acute immobilization	Reproduction
Endpoint	Growth rate 48hr-EC50 48hr-NOEC AUG 72hr-EC50 72hr-NOEC	48hr-EC50	21 day-EC50 21 day-NOEC
Conc. (mg/L)			
FY			
References			

*AUG=Area Under Growth curve

Section 13. Disposal Considerations



MATERIAL DATA SAFETY SHEET TALC

Waste Disposal Information Talc is not considered a hazardous waste by RCRA criteria (40 CFR 261). Dry material can usually be land-filled. State and Local regulations/restrictions are complex and may differ from Federal regulations. Responsibility for proper waste disposal is with the owner of the waste.

Section 14. Transport Information

Transport Information U.S. Department of Transportation - DOT: No classification assigned
CANADIAN Transportation of Dangerous Goods: No classification assigned
LAND Transport - ADR/RID: No classification assigned
AIR Transport - IATA/ICAO: No classification assigned (International Air Transport Association/International Civil Aviation Organization)
MARITIME Transport - IMDG: No classifications assigned International Maritime Dangerous Goods)
HARMONIZED Tariff Code: Talc – crushed or powdered. 2526.20.00. (Stat. Suffix 00)
EPA TSCA 12(B) Export Notification: Not listed

Section 15. Regulatory Information

Chemical Inventories EPA TSCA Status: Listed (CAS # 14807-96-6) EINECS (European No: 238-877-9)
CEPA Domestic Substance List – DSL: Listed CEPA Non-domestic substance List – NDSL: Not listed
AICS (Australian – NICNAS) ECL (Korean No: KE-32773)
SWISS (Giftliste No: G-6939) PICCS (Philippines)
ENCS/MITI (Japan) – Talc exempt IECSC (China): Listed

Other Pertinent Classifications/Regulations

CALIFORNIA PROP 65 Status: Talc not listed
STATE RIGHT-TO-KNOW: Talc listed – Illinois; Massachusetts; New Jersey; Pennsylvania; Florida
CLEAN AIR ACT – Ozone Depleting Chemicals (ODC's): None
CONEG Approved Packaging: Yes
NFPA RATINGS: (Scale 0-4) Health = 1, Fire = 0, Reactivity = 0

NPCA: National Paint and Coatings Association – Hazardous Material Identification System (HMIS)

HEALTH: 1* (Chronic Potential)
FLAMMABILITY: 0
PHYSICAL: 0
PERSONAL PROTECTION: dust respirator, glasses or goggles, gloves

Section 16. Other Information

Label Hazard Warning CAUTION - PROLONGED EXCESSIVE INHALATION MAY CAUSE LUNG INJURY

Label Precautions UTILIZE DUST RESPIRATOR AND EXHAUST VENTILATION. REFER TO MSDS FOR COMPLETE DETAILS



TYPICAL APPEARANCE OF PRODUCT LABEL



MATERIAL DATA SAFETY SHEET TALC

**Primary
References
for Key Data**

ACGIH - Documentation of TLV's 2001
 OSHA - Chemical Sampling Information: Talc (Containing no asbestos) (Revised 1/15/1999)
 OSHA - TALC (Containing no asbestos). OSHA comments from the June 19, 1988 Final Rule on Air Contaminants Project extracted from 54FR2324 *et. seq.*
 OSHA - Compliance Interpretation Letter dated August 22, 2000 regarding talc products containing less than 1% quartz.
 OSHA - Guidelines for Employer Compliance (Advisory) 1910.1200 App E
 NIOSH - Pocket Guide to Chemical Hazards. Talc (containing no asbestos and less than 1% quartz).
 NIOSH - REL's and General Recommendations for Safety and Health. [TALC (containing no asbestos).
 AIHA - Hygienic Guides Series – Talc (1982)
 IARC - Talc Vol.: 42 (1987) (p.185) 5. Summary of Data Reported and Evaluation; Supplement 7: (1987) (p.349) Talc Not Containing Asbestiform Fibers (Group 3).
 CCOHS – Database MSDS FTSS. Network Version 2002.
 NTP – RoC/NIEHS Database. Network Version 2002.

Glossary

ACGIH – American Conference of Governmental Industrial Hygienists
 AIHA – American Industrial Hygiene Association
 CCOHS – Canadian Centre for Occupational Health and Safety
 IARC – International Agency for Research on Cancer
 NIOSH – National Institute of Occupational Safety and Health
 NTP – National Toxicological Program
 OSHA – Occupational Safety and Health Association
 PEL – Permissible Exposure Level
 TLV – Threshold Limit Value
 TWA – Time Weighted Average

**Important
Notice**

Luzenac America, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

Issued by

Shripal Sharma
 Global talc Regulatory Affairs Manager
 Luzenac America, Inc.
 E-mail: shripal.sharma@riotinto.com
 Phone: 1-303-713-5227

EXHIBIT 35



MATERIAL DATA SAFETY SHEET TALC

Plaintiff's Exhibit
No.

P-37

exhibitsticker.com

Section 1. Product and Company Identification			
Product Names			
Grade 25 USP	Imperial 180 USP	Imperial 200 USP	
Imperial 250 USP	Imperial 400 USP	Imperial 400Y USP	
Imperial 500 USP	Imperial 1885L USP/BC	Imperial 1889L USP/BP/EP/BC	
Imperial 1890 USP/BC	Imperial 1892L USP/BP/EP/BC	Olympic H USP	
Suprafino HP USP	Supra H USP	Olympic HY USP	
Supreme H USP			
Synonyms Talcum powder, Soapstone, Steatite			
Chemical Name	Talc ; Hydrous magnesium silicate	CAS#	14807-96-6
		Chemical Family	Phyllosilicates
Manufacturer	Luzenac America, Inc. 8051 E. Maplewood Avenue, Bldg 4 Greenwood Village, CO 80111 Toll-free +1-800-325-0299 (General Information)	Emergency Health Information (24 hrs) 303-623-5716	

Section 2. Composition/Information on Ingredients			
Substance	CAS#	% by Weight	TLV - TWA
Talc	14807-96-6	98-100	2 mg/m3 respirable fraction (ACGIH)
Dolomite	16389-88-1	0-2	Use Talc TLV for total exposure measurements

Section 3. Health Hazards Identification and Emergency Overview	
Emergency Overview	Under normal conditions of use, this product is not expected to create any unusual emergency hazards. This product is NOT flammable, NOT reactive, NOT explosive, has NO flash point, and poses NO special hazards in the presence of fire.
<p>Potential Health Effects from Acute and Chronic Occupational Exposures to Talc</p> <p>TARGET ORGANS</p> <div style="text-align: center;"> </div> <p>LUNGS, RESPIRATORY SYSTEM</p>	
Inhalation	<p>ACUTE: Exposure to a large concentration of air-born dust of this material may cause mechanical irritation of the mucous membranes and respiratory tract.</p> <p>CHRONIC: Repeated or prolonged inhalation of air-born dust of this material may cause scarring of the lungs (pulmonary fibrosis), with shortness of breath, chronic cough, and respiratory assisted heart failure. Prolonged exposure to talc can produce symptomatic talc pneumoconiosis (talcosis).</p>
Skin Contact	<p>ACUTE: Direct contact may cause dryness, or may cause mild irritation if an allergic predisposition exists.</p> <p>CHRONIC: Prolonged contact may cause dryness of the skin, or may cause mild irritation if an allergic pre-disposition exists</p>
Eye Contact	<p>ACUTE: Direct contact with dust may cause mechanical irritation of the eyes.</p> <p>CHRONIC: Repeated exposure may cause conjunctivae inflammation.</p>
Ingestion	<p>ACUTE: This material is considered to be harmless and inert when ingested.</p> <p>CHRONIC: Repeated ingestion of large doses of talc for 13 and 10 successive days by rabbits and mice revealed negative teratogenic and carcinogenic results.</p>



MATERIAL DATA SAFETY SHEET




TALC

Section 4. First Aid Measures	
Inhalation	Remove from exposure area to fresh air. If breathing has stopped, perform artificial respiration and get medical attention immediately. Keep person warm and at rest. Treat symptomatically and supportively.
Skin Contact	Apply common skin moisturizers to relieve dryness. Irritations are uncommon; however, if irritation or redness develops, seek medical attention. Broken skin can be cleansed with mild soap and water.
Eye Contact	Wash eyes with large amounts of water or normal saline solution. If irritation or redness develops, seek medical attention.

Section 5. Fire Fighting Measures	
Flammability	This product is NOT flammable, NOT reactive, NOT explosive, has NO flash point, and poses NO special hazards in the presence of fire. Firefighters require NO special protective equipment or precautions.

Section 6. Accidental Release Measures	
Small Spill	Use vacuum to clean up spillage. Place in sealed container.
Large Spill	For large spills, shovel or sweep up (while keeping dispersion of dust in air to a minimum) and place into suitable sealed containers for reclamation or later disposal. Residue should be cleaned up using a high-efficiency particulate filter vacuum. The use of water wash-down is not recommended. Wet material can cause a surface used for walking to become extremely slippery. Talc is not considered a hazardous waste by RCRA criteria (40 CFR 261).

Section 7. Handling and Storage	
Handling & Storage	Handle in ways to minimize the creation of dust. Preserve product in sealed containers.

Section 8. Exposure Controls & Personal Protection	
Personal Protection	Use NIOSH approved dust respirator. Use safety glasses or dust tight goggles. No special skin protection is usually required, but gloves should be worn by workers susceptible to skin irritation.
<div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">  <p>Dust Respirator</p> </div> <div style="text-align: center;">  <p>Safety Glasses</p> </div> <div style="text-align: center;">  <p>Gloves</p> </div> </div>	
Controls	Provide local exhaust or process enclosure ventilation to meet published exposure limits (TLV).

Section 9. Physical & Chemical Properties	
Appearance	White to grayish-white powder
Odor	Slight earthy odor.
Flammability	This product is NOT flammable, NOT reactive, NOT explosive, has NO flash point.
Specific Gravity	2.8 (water = 1.0)
Melting Point	None



MATERIAL DATA SAFETY SHEET

TALC

pH	Slightly basic (10% slurry in water)		
Solubility	Water: <1 mg/mL @ 21 C	Acetone : <1 mg/mL @ 21 C	Alkalies: Insoluble
	Ethanol: <1 mg/mL @ 21 C	Cold acids: Insoluble	

Section 10. Stability & Reactivity Data	
Stability	This product is stable, non-reactive, and non-corrosive.
Incompatibility with various substances	Non reactive/none known.

Section 11. Toxicological Information	
Toxicology	<p>NIOSH Registry Number: WW2710000 SAX Toxicity Evaluation: THR: Not available Carcinogenic Status: IARC: (2006 in preparation) Has concluded that perineal use of talc-based body powder is possibly carcinogenic to humans (Group 2B). This is not a route of exposure relevant for workers and applies to one specific use of talc only. IARC: (2006 in preparation) Inhaled talc not containing asbestos or asbestiform fibres not classifiable as a human carcinogen (Group 3) OSHA: Not listed. ACGIH: A4 – Not Classifiable as a Human Carcinogen NTP: Not listed. A 2-year inhalation study demonstrated clear evidence of carcinogenic activity in female rats at exposure levels of 18 mg/m³. Some evidence of carcinogenic activity was observed in male rats at the same level. No evidence of carcinogenic activity was found in mice (NTP TR-421). Tumorigenic Data: TCLo: ihl-rat 11 mg/m³/1Y-I TDLo: imp-rat 200 mg/kg Other Toxicity Data: Skin and Eye Irritation Data: skn-hmn 300 ug/3D-I MLD Teratogenicity (Reproductive Effects Data): Not available. Mutation Data: Not available.</p>

Section 12. Ecological Information	
Ecological Data	
Species	Alga ((<i>Selenastrum capricornutum</i>)) <i>Daphnia Magna</i> <i>Daphnia Magna</i>
Test	Acute
Endpoint	Growth inhibition immobilization Reproduction
	Growth rate
	48hr-EC50 48hr-NOEC
	AUG
	72hr-EC50 72hr-NOEC
Conc. (mg/L)	
FY	
References	

*AUG=Area Under Growth curve

Section 13. Disposal Considerations



MATERIAL DATA SAFETY SHEET TALC

Waste Disposal Information Talc is not considered a hazardous waste by RCRA criteria (40 CFR 261). Dry material can usually be land-filled. State and Local regulations/restrictions are complex and may differ from Federal regulations. Responsibility for proper waste disposal is with the owner of the waste.

Section 14. Transport Information

Transport Information U.S. Department of Transportation - DOT: No classification assigned
CANADIAN Transportation of Dangerous Goods: No classification assigned
LAND Transport - ADR/RID: No classification assigned
AIR Transport - IATA/ICAO: No classification assigned (International Air Transport Association/International Civil Aviation Organization)
MARITIME Transport - IMDG: No classifications assigned International Maritime Dangerous Goods)
HARMONIZED Tariff Code: Talc – crushed or powdered. 2526.20.00. (Stat. Suffix 00)
EPA TSCA 12(B) Export Notification: Not listed

Section 15. Regulatory Information

Chemical Inventories EPA TSCA Status: Listed (CAS # 14807-96-6) EINECS (European No: 238-877-9)
CEPA Domestic Substance List – DSL: Listed CEPA Non-domestic substance List – NDSL: Not listed
AICS (Australian – NICNAS) ECL (Korean No: KE-32773)
SWISS (Giftliste No: G-6939) PICCS (Philippines)
ENCS/MITI (Japan) – Talc exempt IECSC (China): Listed

Other Pertinent Classifications/Regulations

CALIFORNIA PROP 65 Status: Talc not listed
STATE RIGHT-TO-KNOW: Talc listed – Illinois; Massachusetts; New Jersey; Pennsylvania; Florida
CLEAN AIR ACT – Ozone Depleting Chemicals (ODC's): None
CONEG Approved Packaging: Yes
NFPA RATINGS: (Scale 0-4) Health = 1, Fire = 0, Reactivity = 0

NPCA: National Paint and Coatings Association – Hazardous Material Identification System (HMIS)

HEALTH: 1* (Chronic Potential)
FLAMMABILITY: 0
PHYSICAL: 0
PERSONAL PROTECTION: dust respirator, glasses or goggles, gloves

Section 16. Other Information

Label Hazard Warning CAUTION - PROLONGED EXCESSIVE INHALATION MAY CAUSE LUNG INJURY

Label Precautions UTILIZE DUST RESPIRATOR AND EXHAUST VENTILATION. REFER TO MSDS FOR COMPLETE DETAILS



TYPICAL APPEARANCE OF PRODUCT LABEL



MATERIAL DATA SAFETY SHEET TALC

**Primary
References
for Key Data**

ACGIH - Documentation of TLV's 2001
 OSHA - Chemical Sampling Information: Talc (Containing no asbestos) (Revised 1/15/1999)
 OSHA - TALC (Containing no asbestos). OSHA comments from the June 19, 1988 Final Rule on Air Contaminants Project extracted from 54FR2324 *et. seq.*
 OSHA - Compliance Interpretation Letter dated August 22, 2000 regarding talc products containing less than 1% quartz.
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 NIOSH - REL's and General Recommendations for Safety and Health. [TALC (containing no asbestos).
 AIHA - Hygienic Guides Series – Talc (1982)
 IARC - Talc Vol.: 42 (1987) (p.185) 5. Summary of Data Reported and Evaluation; Supplement 7: (1987) (p.349) Talc Not Containing Asbestiform Fibers (Group 3).
 CCOHS – Database MSDS FTSS. Network Version 2002.
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Glossary

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 AIHA – American Industrial Hygiene Association
 CCOHS – Canadian Centre for Occupational Health and Safety
 IARC – International Agency for Research on Cancer
 NIOSH – National Institute of Occupational Safety and Health
 NTP – National Toxicological Program
 OSHA – Occupational Safety and Health Association
 PEL – Permissible Exposure Level
 TLV – Threshold Limit Value
 TWA – Time Weighted Average

**Important
Notice**

Luzenac America, Inc. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

Issued by

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